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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,558	09/27/2001	Gary Brian Merrill	01P17802US	3870

7590 05/16/2003

Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

FIORILLA, CHRISTOPHER A

ART UNIT PAPER NUMBER

1731

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/965,558

Applicant(s)

MERRILL ET AL.

Examiner

Christopher A. Fiorilla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 9-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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1. The disclosure is objected to because of the following informalities:

On page 3, line 27, the word “poring” appears to be misspelled.

On page 4, lines 20 and 21, the word spacing needs to be corrected.

Appropriate correction is required.

2. Claim 1 is objected to because of the following informalities:

In claim 1, line 1, the phrase “a insulating material” should be changed to – an insulating material – (see spec., page 2, line 19).

In claim 1, line 11, the phrase “a impermeable” should be changed to – an impermeable --.

In claim 1, line 20, the phrase “geometric shapes filling in any voids” should be changed to –geometric shapes thereby filling in any voids --, or other similar language.

Appropriate correction is required.

3. Claims 1-7 and 9-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process that uses a sinterable binder (e.g. page 10, line 22), does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

4. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process which utilizes a fibrous material (12) to define a side of the void or sphere cavity (e.g. page 12, line 14), does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in

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the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

5. Claims 1-7, 9-18 and 24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process which removes the shaped material from the mold in which it is formed (e.g. page 13, line 23), does not reasonably provide enablement for the process as generically claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

6. Applicant's arguments filed 3/13/03 have been fully considered but they are not persuasive.

**With respect to the 112/1<sup>st</sup> paragraph rejection as set forth in paragraph 3 of the Office Action mailed 12/13/02 applicant argues:**

**Each of the independent claims 1 and 12 have been amended herein to add additional process steps in order to overcome the rejection identified in paragraph 3 of the Office Communication.**

This argument is not persuasive. The rejection identified in paragraph 3 of the Office Action recites that the specification is enabled for a process that utilizes a sinterable binder. The claims have not been amended to include any reference to a sinterable binder. Page 10, line 22 of the specification indicates that this is a key property of the binder.

**With respect to the 112/1<sup>st</sup> paragraph rejection as set forth in paragraph 4 of the Office Action mailed 12/13/02 applicant argues:**

**Claim 1 has been amended to include the limitation of "providing a first structure that is permeable to a liquid portion of a slurry comprising a binder but that is not permeable to a solid portion of the slurry". This amendment overcomes the rejection identified in paragraph 4 of the Office Communication because the specification does**

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**provide enablement for the claimed process including such a limitation. In particular, the "first structure" of the amended claim is enabled in the specification by the combination of the permeable wall 10 and the fibrous material 12.**

This argument is not persuasive. The basis for the rejection is the scope of the claims.

The examiner maintains that the claims are broader than the disclosure. The disclosure requires the use of a fibrous material (12). See e.g. page 4, first paragraph of the specification.

Applicants' argument above for enablement even relies upon the existence of the fibrous material. Thus, the claims should recite the use of a fibrous material as appropriate.

**With respect to the 112/1<sup>st</sup> paragraph rejection as set forth in paragraph 5 of the Office Action mailed 12/13/02 applicant argues:**

**Applicants argue that the claimed method of making an insulating material (independent claim 1) and method of making a ceramic material (independent claim 12) can properly be considered complete once the insulating material or ceramic material is formed in its partially dried state within the mold. The removal of the material from the mold, further heating/firing, application of the material onto a substrate, and use of the material in a high temperature environment such as a combustion turbine engine are all elective steps that one may take after the completion of the claimed process making the material. Page 13, lines 23-26 of the present specification describe steps wherein the insulating material 22 is dried, heated and sintered once removed from the chamber 30, or alternatively wherein the entire mold can be heated as an initial step to dry the material 22. Thus, the present specification does provide enablement for a process that makes a material without removing the material from the mold, and then further processes the material either within or outside the mold.**

This argument is not persuasive. Claim 1 as amended recites steps of drying and heating. Claim 12 has also been amended to disclose a heating step. The specification does not disclose that the heating step can take place in the mold (p. 13, lines 25 and 26 do disclose that the drying may take place in the mold). Thus, the claim as written (i.e. without a step of removing the material from the mold defined by the various structures) constitutes an embodiment not disclosed by the original specification.

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7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Fiorilla whose telephone number is 703-308-0674. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



**Christopher A. Fiorilla**  
**Primary Examiner**  
**Art Unit 1731**